

REMARKS

Claims 1-85 are currently pending, of which claims 12-61, 69-73 and 81-85 have been allowed. Applicant reserves the right to pursue original and other claims in this and any other application. Applicant appreciates the indication of claims 12-61, 69-73, and 81-85 being allowed.

Claims 1-8, 62-65, and 74-77 stand rejected under 35 U.S.C. 102(e) as being anticipated by Hoehler (U.S. Pat. No. 6,956,782). The rejection is respectfully traversed.

The present invention is directed to memory refresh operations. More specifically, the present invention is directed to monitoring refresh operations and indicating, based on monitoring of memory operations, when the memory refresh operation is complete.

Claim 1 recites:

a control circuit for conducting a memory refresh operation, for monitoring a memory device, and for indicating when said refresh operation is complete based on said monitoring of said memory device.

Hoehler discloses a:

method of refreshing several memory banks of a memory device that receives command signals from a memory controller. The method includes monitoring command signals received by a memory device and refreshing the several memory banks based on the monitored command signals so as to avoid unnecessary power consumption for refreshing particular ones of the several memory banks with irrelevant contents.

(Hoehler Abstract)

Hoehler fails to disclose the claimed invention and more specifically fails to disclose "indicating when said refresh operation is complete based on said monitoring of said memory device." The Office points to col. 3, line 11 – col. 4, line 40 as allegedly lending support for this

proposition. Hoehler is directed at a different aspect of memory operations; Hoehler determines whether a memory refresh operation of a memory bank should be initiated. (see, at least, Hoehler abstract). Hoehler's specification at col. 3, line 11 – col. 4, line 40 teaches the operation of the refresh memory operations, both self refresh operations and auto refresh operations. However, the identified section of Hoehler do not teach monitoring the memory device in order to tell when the refresh operation is complete. Thus, Hoehler fails to anticipate the claimed invention. Therefore, the rejection of claim 1 should be withdrawn and claim 1 and its dependant claims allowed over Hoehler.

Claims 62 and 74 also recite a circuit “for indicating when said refresh operation is complete based on said monitoring of said memory array.” Thus, claims 62 and 74 and their respective dependant claims are allowable over Hoehler for at least the reasons noted above with respect to claim 1. The rejection should be withdrawn and the claims allowed.

Claims 9-11, 66-68, and 78-80 stand objected to as being dependant upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant respectfully submits that the base claims are allowable for at least the reasons set forth above. Thus, claims 9-11, 66-68, and 78-80 are allowable. The objection should be withdrawn and the claims allowed.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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